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Dharmaji

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(54) **HOT SPOT USE IN ADVERTISING**

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CPC ***G06Q 30/0267*** (2013.01); ***G06Q 30/02*** (2013.01)

(58) **Field of Classification Search**
CPC H04N 21/858; H04L 67/02; G06Q 30/02; G06Q 30/0255; G06Q 30/0267; H04M 3/4878; H04M 1/72583
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,914,654	A	6/1999	Smith
6,036,601	A	3/2000	Heckel
6,067,008	A	5/2000	Smith
6,070,149	A	5/2000	Tavor et al.
6,137,834	A	10/2000	Wine et al.
6,182,098	B1	1/2001	Selker
6,256,043	B1	7/2001	Aho et al.
6,314,451	B1	11/2001	Landsman et al.
6,317,885	B1	11/2001	Fries
6,342,926	B1	1/2002	Hanafee et al.

(Continued)

FOREIGN PATENT DOCUMENTS

GB	2404751	2/2005
JP	2005-259097	9/2005

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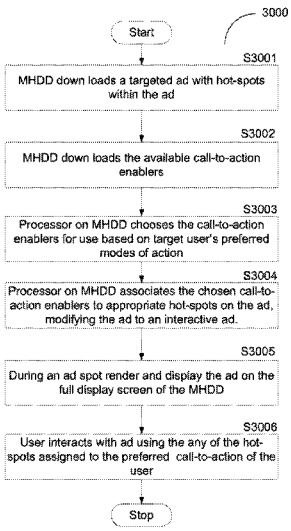
(57) **ABSTRACT**

The delivery of targeted advertisements (ads) to wireless mobile handheld display devices (MHDDs) with client specific advertisement and dynamic content for response and feedback is becoming important in advertising. As the return for ads on MHDDs becomes higher, there is a push to show larger and more interactive ads on devices that have small displays. This has created a need to maximize the area available for ad viewing. The need for larger viewing area reduces the area available for call-to-action response enabling switches or inserts on the screen for customer interaction. To overcome this deficiency and provide the necessary end-to-end response capability, hot-spots on the ad image are provided as call-to-action response regions without limitation on the ad viewing area. The use of such hot-spots provides users of MHDDs a preferred interaction mechanism for responding to the advertisement, while maintaining a large ad viewing area.

5 Claims, 4 Drawing Sheets



(56) **References Cited**

U.S. PATENT DOCUMENTS

6,362,817 B1 3/2002 Powers et al.
6,396,509 B1 5/2002 Cheng
6,448,980 B1 9/2002 Kumar
6,477,575 B1 11/2002 Koeppel et al.
6,496,857 B1 12/2002 Dustin et al.
6,505,169 B1 1/2003 Bhagavath et al.
6,519,571 B1 2/2003 Guheen et al.
6,647,257 B2 11/2003 Owensby
6,698,020 B1 2/2004 Zigmond et al.
6,711,552 B1 3/2004 Kay et al.
6,714,992 B1 3/2004 Kanojia et al.
6,826,614 B1 * 11/2004 Hanmann G06F 17/30902 707/E17.12
6,847,992 B1 1/2005 Haitsuka et al.
6,915,012 B2 7/2005 Osborne et al.
6,920,606 B1 7/2005 Jablonski et al.
6,968,315 B1 11/2005 Nakisa
7,027,801 B1 4/2006 Hall et al.
7,062,469 B2 6/2006 Meyers et al.
7,162,226 B2 1/2007 Papulov
7,271,737 B1 9/2007 Hoffberg
7,343,317 B2 3/2008 Jokinen et al.
7,505,920 B2 3/2009 Agarwal et al.
7,516,201 B2 4/2009 Kovacs et al.
7,533,343 B2 5/2009 Ratnakar
7,613,691 B2 11/2009 Finch
7,647,316 B2 1/2010 Patel et al.
7,650,617 B2 1/2010 Hoshino et al.
7,684,790 B2 3/2010 Cartmell
7,720,835 B2 5/2010 Ward et al.
7,724,783 B2 5/2010 Shvodian et al.
7,747,264 B2 6/2010 Fiorini
7,769,633 B2 8/2010 Jokinen et al.
7,775,440 B2 8/2010 Silverbrook et al.
7,778,636 B2 8/2010 Rolf
7,805,444 B2 9/2010 Roche et al.
7,856,372 B2 12/2010 Ullah
7,856,373 B2 12/2010 Ullah
7,861,260 B2 12/2010 Shkedi
8,009,608 B2 8/2011 Karaoguz et al.
8,132,202 B2 3/2012 Swix et al.
8,510,661 B2 * 8/2013 Dharmaji G06Q 30/02 705/14.4
8,549,410 B2 10/2013 Hoyle
8,701,051 B2 * 4/2014 Dharmaji G06Q 30/02 705/14.64
8,732,166 B1 * 5/2014 Strand G06F 17/30884 707/710
9,021,060 B2 * 4/2015 Bramley G06Q 30/0267 705/14.45
9,189,794 B2 * 11/2015 Dharmaji G06Q 30/02
2001/0023436 A1 9/2001 Srinivasan et al.
2001/0034654 A1 10/2001 Vigil et al.
2001/0056405 A1 12/2001 Muyres et al.
2002/0032631 A1 * 3/2002 Rose G06Q 10/10 705/37
2002/0046099 A1 4/2002 Frengut et al.
2002/0055968 A1 5/2002 Wishoff et al.
2002/0083445 A1 6/2002 Flickinger et al.
2002/0087397 A1 7/2002 Mazza
2002/0087976 A1 7/2002 Kaplan et al.
2002/0133405 A1 9/2002 Newnam et al.
2002/0154163 A1 10/2002 Melchner
2002/0166119 A1 11/2002 Cristofalo
2003/0004802 A1 1/2003 Callegari
2003/0028889 A1 2/2003 McCoskey et al.
2003/0131070 A1 7/2003 Stroebel et al.
2003/0137544 A1 7/2003 Mears et al.
2003/0151621 A1 8/2003 Mcevilly et al.
2003/0188308 A1 10/2003 Kizuka et al.
2004/0003118 A1 1/2004 Brown et al.
2004/0073947 A1 4/2004 Gupta et al.
2004/0103120 A1 5/2004 Fickle et al.
2004/0122735 A1 6/2004 Meshkin
2004/0133480 A1 7/2004 Domes
2005/0044082 A1 2/2005 Chande et al.
2005/0149385 A1 7/2005 Trively
2005/0197164 A1 9/2005 Chan
2005/0209923 A1 9/2005 Jablonski et al.
2006/0020548 A1 1/2006 Flather et al.
2006/0036488 A1 2/2006 Golan et al.
2006/0074769 A1 4/2006 Looney et al.
2006/0089792 A1 4/2006 Manber et al.
2006/0089843 A1 * 4/2006 Flather G06Q 30/06 705/1.1
2006/0136297 A1 6/2006 Willis et al.
2006/0168664 A1 7/2006 Frank et al.
2006/0190616 A1 * 8/2006 Mayerhofer H04L 67/20 709/231
2006/0259455 A1 11/2006 Anderson et al.
2006/0294538 A1 12/2006 Li et al.
2007/0038507 A1 * 2/2007 Kumar G06Q 30/02 379/114.1
2007/0047002 A1 * 3/2007 Hull G06F 17/30047 358/3.28
2007/0061204 A1 3/2007 Ellis et al.
2007/0061205 A1 3/2007 Crolley
2007/0061331 A1 * 3/2007 Ramer G06F 17/30867
2007/0078712 A1 4/2007 Ott, IV et al.
2007/0088801 A1 * 4/2007 Levkovitz H04L 12/1859 709/217
2007/0094072 A1 * 4/2007 Vidals G06Q 30/02 705/14.43
2007/0094082 A1 4/2007 Yruski et al.
2007/0101359 A1 5/2007 Schiller et al.
2007/0146200 A1 6/2007 Norin et al.
2007/0150573 A1 * 6/2007 Kitchen G06Q 30/02 709/223
2007/0198339 A1 8/2007 Shen et al.
2007/0204310 A1 8/2007 Hua et al.
2008/0004957 A1 * 1/2008 Hildreth G06Q 30/0267 705/14.64
2008/0033781 A1 2/2008 Peretti
2008/0040743 A1 2/2008 Dharmaji
2008/0040768 A1 2/2008 Robotham
2008/0081640 A1 4/2008 Tran et al.
2008/0097843 A1 * 4/2008 Menon G06Q 30/02 705/14.1
2008/0103875 A1 5/2008 Kokernak et al.
2008/0114762 A1 5/2008 Fukuda et al.
2008/0182563 A1 * 7/2008 Wugofski G06Q 10/10 455/414.2
2008/0189735 A1 8/2008 Barton et al.
2008/0195468 A1 8/2008 Malik
2008/0201734 A1 8/2008 Lyon et al.
2008/0221909 A1 * 9/2008 Muhonen G06Q 30/02 705/1.1
2008/0255943 A1 10/2008 Morten et al.
2008/0270886 A1 10/2008 Gossweiler et al.
2008/0288354 A1 11/2008 Flinn et al.
2008/0290987 A1 11/2008 Li
2008/0313029 A1 12/2008 Evans et al.
2008/0318559 A1 12/2008 Porco
2009/0049380 A1 2/2009 Rehling et al.
2009/0099931 A1 * 4/2009 Aaltonen G06Q 30/0257 705/14.55
2009/0106126 A1 4/2009 Asano et al.
2009/0171779 A1 7/2009 Shrivathsan et al.
2009/0191855 A1 * 7/2009 Forrester G06Q 30/02 455/418
2009/0197582 A1 * 8/2009 Lewis H04W 4/02 455/414.2
2009/0199114 A1 * 8/2009 Lewis G06Q 30/02 715/763
2009/0204901 A1 * 8/2009 Dharmaji G06F 3/0481 715/745
2009/0234861 A1 9/2009 Ramer et al.
2009/0247140 A1 * 10/2009 Gupta G06Q 30/02 455/418
2009/0254824 A1 * 10/2009 Singh G01C 21/3679 715/716
2009/0287561 A1 * 11/2009 Rybak G06Q 30/0225 705/14.26

(56) **References Cited**

U.S. PATENT DOCUMENTS

2009/0298480	A1*	12/2009	Khambete	G06F 17/30699 455/414.1
2009/0320059	A1	12/2009	Bolyukh	
2010/0002874	A1	1/2010	Obayashi et al.	
2010/0017280	A1	1/2010	Davis et al.	
2010/0041422	A1	2/2010	Wormald et al.	
2010/0042485	A1	2/2010	Wang et al.	
2010/0082435	A1	4/2010	Hartman	
2010/0094703	A1*	4/2010	Bramley	G06Q 30/02 705/14.45
2010/0131365	A1	5/2010	Subramanian et al.	
2010/0138295	A1*	6/2010	Caron	G06Q 30/02 705/14.49
2010/0205049	A1	8/2010	Long et al.	
2010/0228611	A1	9/2010	Shenfield	
2010/0228617	A1	9/2010	Ransom et al.	
2010/0235891	A1	9/2010	Oglesbee et al.	
2010/0250351	A1	9/2010	Gillenson et al.	
2010/0250368	A1	9/2010	Porco	
2010/0274661	A1	10/2010	Aaltonen et al.	
2010/0274673	A1	10/2010	Isaac	
2011/0029363	A1	2/2011	Gillenson et al.	
2011/0040627	A1	2/2011	Brewer et al.	
2011/0060651	A1	3/2011	Choi	
2011/0178875	A1*	7/2011	Dharmaji	G06Q 30/0267 705/14.64
2011/0184790	A1*	7/2011	Deol Brar	G06Q 30/0241 705/14.4
2011/0184810	A1*	7/2011	Dharmaji	G06Q 30/0267 705/14.64
2013/0275879	A1*	10/2013	Dharmaji	G06F 3/0481 715/745

* cited by examiner

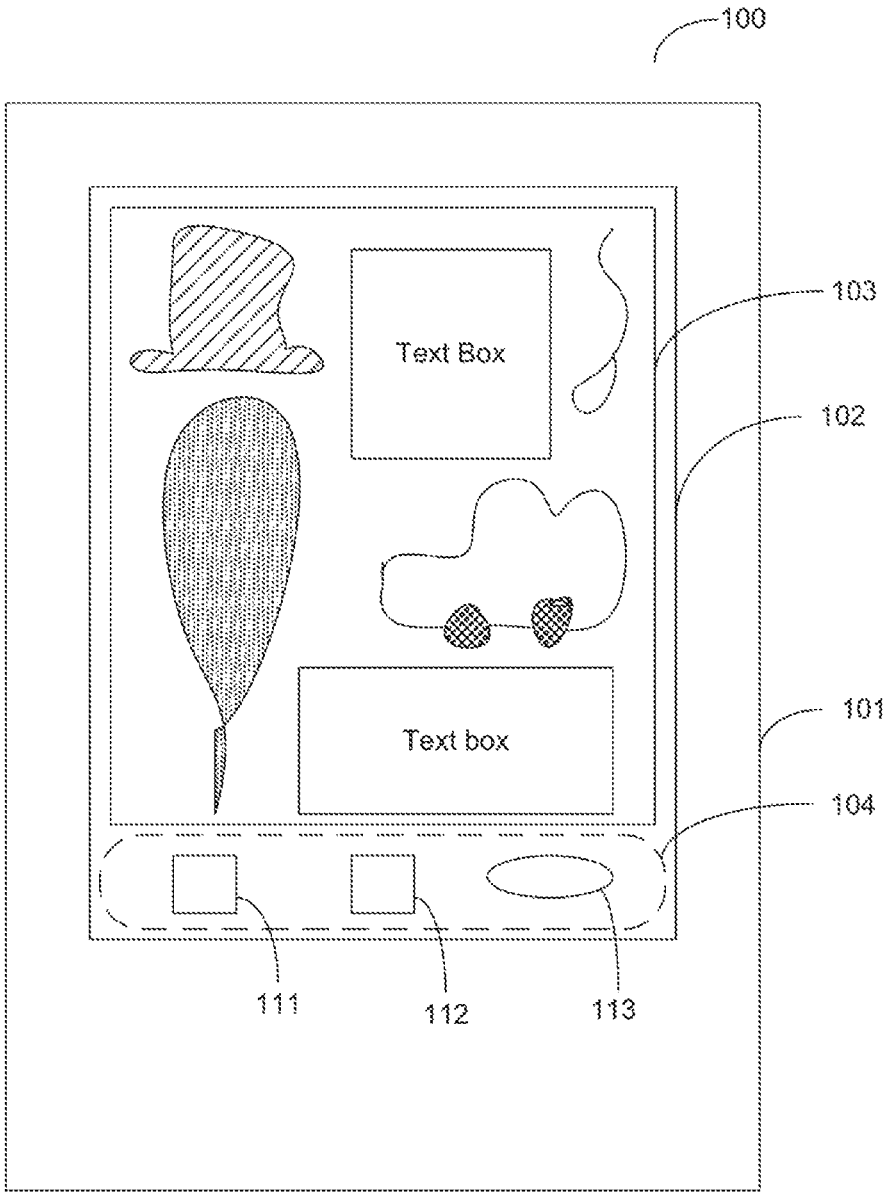


FIGURE 1 (PRIOR ART)

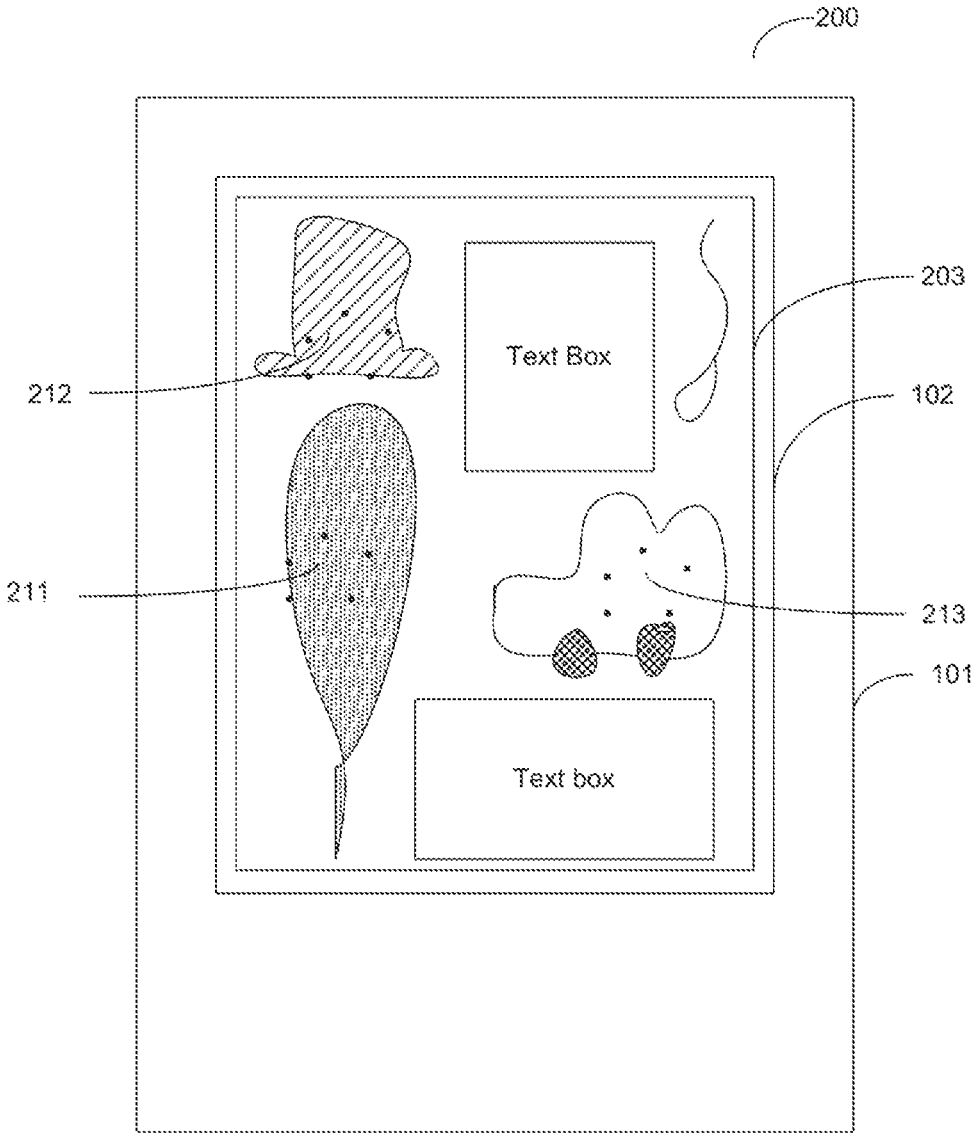


FIGURE 2

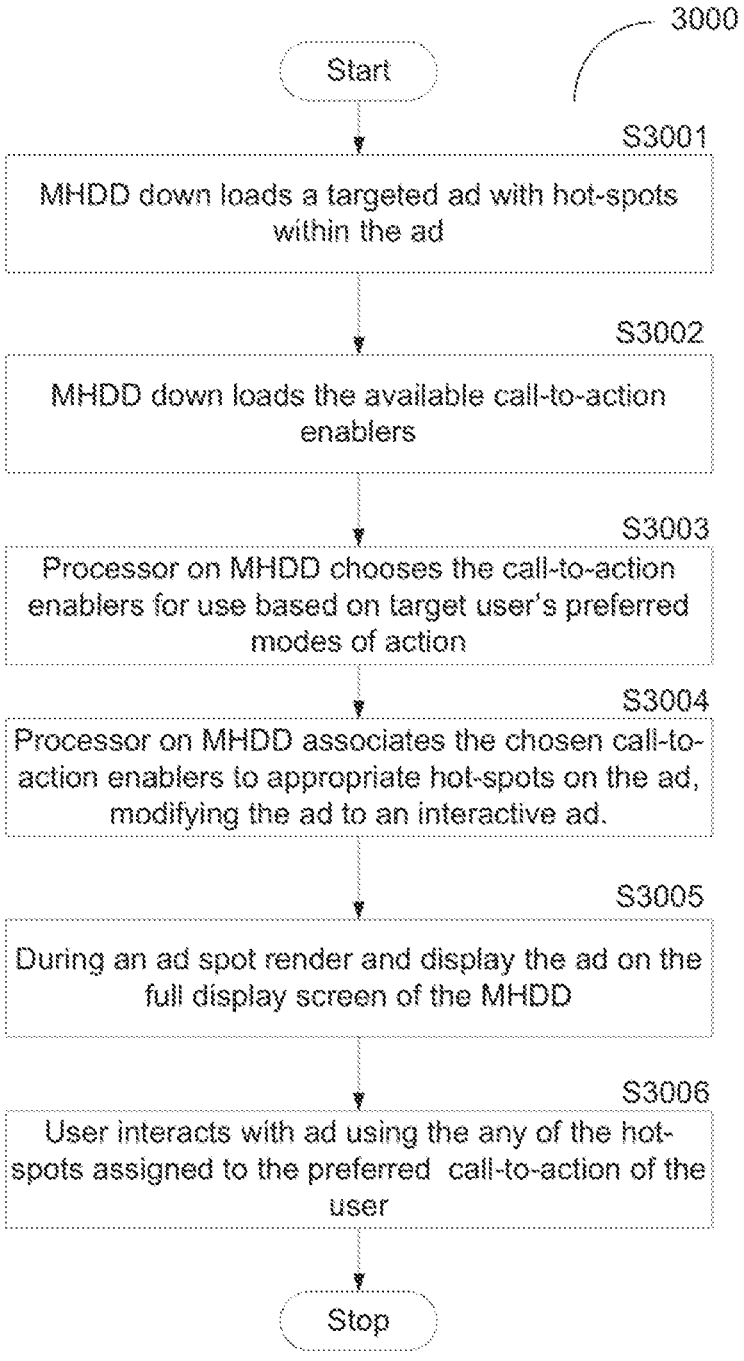

3000
Start
S3001
MHDD down loads a targeted ad with hot-spots within the ad
S3002
MHDD down loads the available call-to-action enablers
S3003
Processor on MHDD chooses the call-to-action enablers for use based on target user's preferred modes of action
S3004
Processor on MHDD associates the chosen call-to-action enablers to appropriate hot-spots on the ad, modifying the ad to an interactive ad.
S3005
During an ad spot render and display the ad on the full display screen of the MHDD
S3006
User interacts with ad using the any of the hot-spots assigned to the preferred call-to-action of the user
Stop

FIGURE 3

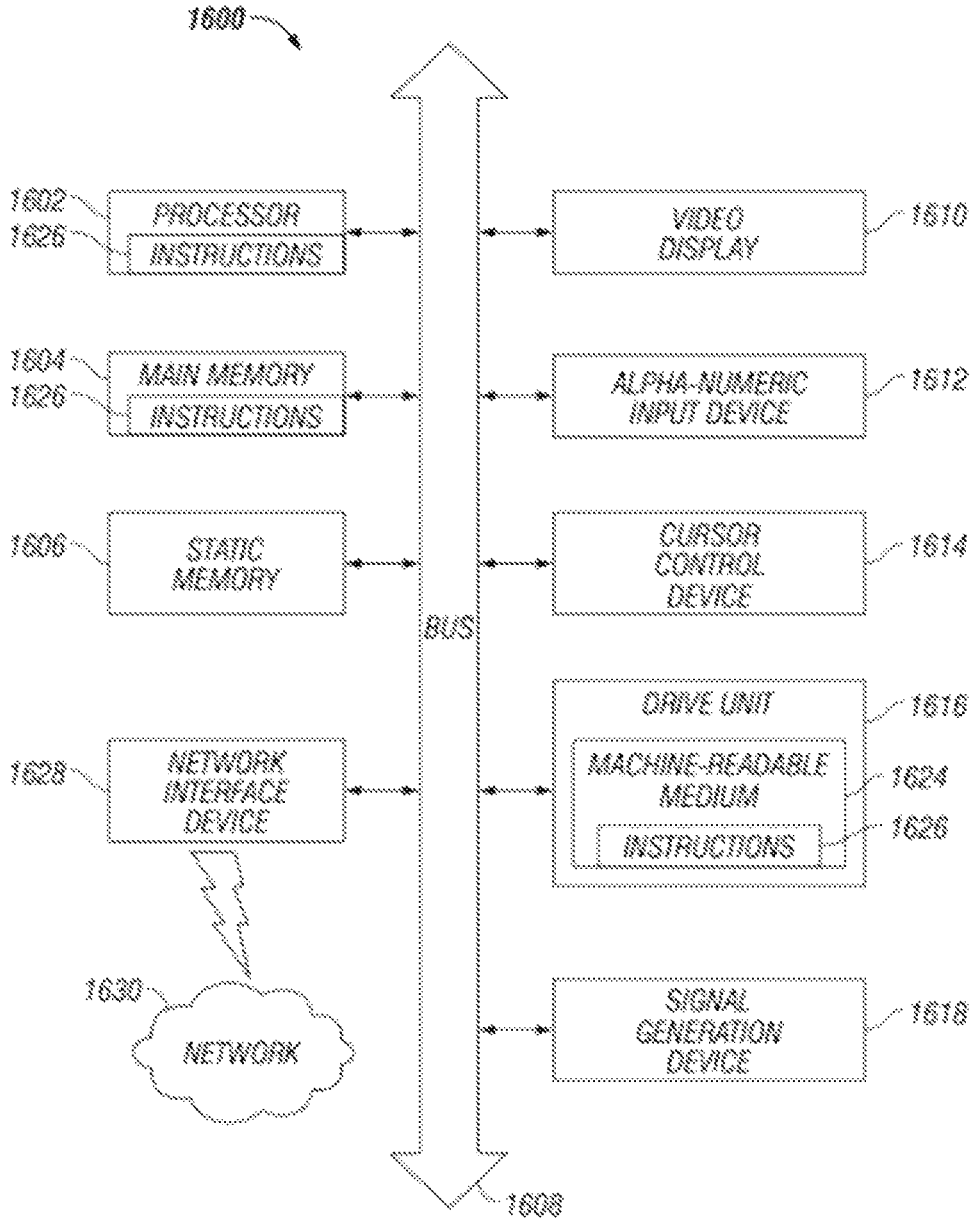

1600
1602
1626
PROCESSOR
INSTRUCTIONS
1604
1626
MAIN MEMORY
INSTRUCTIONS
1606
STATIC MEMORY
1628
NETWORK INTERFACE DEVICE
1630
NETWORK
BUS
1608
VIDEO DISPLAY
1610
ALPHA-NUMERIC INPUT DEVICE
1612
CURSOR CONTROL DEVICE
1614
DRIVE UNIT
1616
MACHINE-READABLE MEDIUM
1624
INSTRUCTIONS
1626
SIGNAL GENERATION DEVICE
1618

FIGURE 4

HOT SPOT USE IN ADVERTISING

CROSS REFERENCE TO RELATED APPLICATIONS

This application is a continuation of U.S. patent application Ser. No. 13/078,297, HOT-SPOT USE IN ADVERTISING, filed Apr. 1, 2011, which is a continuation-in-part of U.S. patent application Ser. No. 12/368,141, End-To-End Response Enabling Collection and Use Of Customer Viewing Preference Statistics, filed Feb. 9, 2009, issued as U.S. Pat. No. 8,510,661 on Aug. 13, 2013, which application claims priority from U.S. provisional patent application Ser. No. 61/065,258, End-To-End Response Enabling Collection and Use Of Customer Viewing Preference Statistics, filed Feb. 11, 2008, each of which is incorporated herein in its entirety by this reference thereto.

BACKGROUND OF THE INVENTION

1. Technical Field

The invention relates to advertisements (ads) and content viewing on wireless enabled mobile handheld display devices (MHDDs). More specifically, the invention relates to the delivery of large targeted ads to MHDDs, and to providing the capability for client specific responses and feedback with regard to these ads.

2. Description of the Background Art

The use of mobile hand held display devices (MHDDs) has been increasing very fast. Providing selective delivery of focused advertisements (ads) to different groups of target mobile viewers with wireless enabled MHDD users in the total population is becoming more and more important and valuable. There is limited capability of delivering customer/group specific ads, and specific preferred ad interaction methods to target mobile viewer groups are limited as well, but such ad delivery is increasing. The ads and their content must be delivered to the MHDDs, and responses are collected back, using interactive call-to-action enablers, such as switches or inserts instantiated on the display of the MHDDs.

The advent of online ad conversion tools for display on MHDDs allows ads in one format to be converted to another format. An example is the Adobe® Wallaby tool (see http://labs.adobe.com/technologies/wallaby/) which converts Flash® ads to hypertext markup language 5 (HTML5) ads. Wallaby does not support call-to-action, although the animations related to the ad are preserved. It would be advantageous for mobile advertisers to repurpose online ads for MHDD if call-to-action can be added to the ad.

FIG. **1** is a block schematic representation of an MHDD display that shows a prior art instantiation **100** of the call-to-action enablers on the display screen **102** of the MHDD **100**. The call-to-action enablers, such as Click-to-Call, Click-to-Browse, Click-to-Jump page, Click-to-Message, Click-to-Mail, Click-to-Bookmark, Click-to-Share, Click-to-Video, Click-to-Ad Unit, Click-to-Download, etc. are instantiated switches **111** and **112** and inserts **113** that take up space **104** on the display screen **102**, thus limiting the space available **103** for display of the ad.

The ads that have to be delivered are becoming more elaborate and require larger viewing area for full assimilation. This has limited the area available for response enablers to be instantiated on the handheld displays. This creates a problem because the return on investment for ads is closely related to the collected and compiled responses from the MHDD users, which provides development and updating capability for focusing the ads. Hence, the capability to respond to ads using preferred interaction methods and collection of their response to advertisements is of utmost importance. A capability for end-to-end user interaction with ads would be essential to enhance the impact of the ads. A capability that maximizes the viewing area while providing for end-to-end user interaction with the ads via the user's preferred response method would be an advantageous solution that would enhance the ads' effectiveness and return.

SUMMARY OF THE INVENTION

The delivery of targeted advertisements (ads) to wireless mobile handheld display devices (MHDDs) with client specific advertisement and dynamic content for response and feedback is becoming important in advertising. As the return for ads on MHDDs becomes higher, there is a push to show larger and more interactive ads on devices that have small displays. This has created a need to maximize the area available for ad viewing. The need for larger viewing area reduces the area available for call-to-action response enabling switches or inserts on the screen for customer interaction. To overcome this deficiency and provide the necessary end-to-end response capability, hot-spots on the ad image are provided as call-to-action response regions without limitation on the ad viewing area. The use of such hot-spots provides users of MHDDs a preferred interaction mechanism for responding to the advertisement, while maintaining a large ad viewing area.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** is a block schematic representation of an MHDD display that shows a prior art instantiation of the call-to-action enablers on the display screen of the MHDD;

FIG. **2** is a block schematic representation of an MHDD display that shows hot-spots instantiated on the displayed ad in accordance with the invention;

FIG. **3** is a flow chart showing the use of transparent hot-spots to make the full display screen available for ad display, while still providing the capability for customer interaction and feedback, according to the invention; and

FIG. **4** is a block schematic diagram of a machine in the exemplary form of a computer system within which a set of instructions for causing the machine to perform any one of the herein disclosed methodologies may be executed.

DETAILED DESCRIPTION OF THE INVENTION

The delivery of targeted advertisements (ads) to wireless mobile handheld display devices (MHDDs) with client specific advertisement and dynamic content for response and feedback is becoming important in advertising. As the return for ads on MHDDs becomes higher, there is a push to show larger and more interactive ads on devices that have small displays. This has created a need to maximize the area available for ad viewing. The need for larger viewing area reduces the area available for call-to-action response enabling switches or inserts on the screen for customer interaction. To overcome this deficiency and provide the necessary end-to-end response capability, hot-spots on the ad image are provided as call-to-action response regions without limitation on the ad viewing area. The use of such hot-spots provides users of MHDDs a preferred interaction mechanism for responding to the advertisement, while maintaining a large ad viewing area.

To provide a real-time response capability to alternate content or ads inserted into a video content stream during content viewing, it is necessary to provide ads which have dynamic content and static message content, as specified by the ads. It also necessary that the dynamic content is specific and focused to each target group, e.g. as defined by the location, the expressed interest, and response mode or method that the individual prefers, such as on screen response, short message service (SMS), keyboard, email, call-back, etc. Most of this preference information is pre-known and stored on the MHDD **101** to enable the MHDD **101** to download the right ads selectively, as described in U.S. patent application Ser. No. 12/368,141, which application is incorporated herein in its entirety by this reference thereto. The response method options typically provided to a user of an MHDD can include, for example, Click-to-Call, Click-to-Browse, Click-to-Jump page, Click-to-Video, Click-to-Ad Unit, Click-to-Message, Click-to-Mail, Click-to-Bookmark, Click-to-Share, Click-to-Download, etc. By generating and focusing the dynamic and static content of an alternate content or ad to a target group, and by providing the customer with a preferred interaction mode, it is possible to improve the impact of the ad on the user.

Another requirement that is becoming more important is the need for larger and more complex ads to be displayed on the small MHDD screens. By enabling larger ads it is possible to increase the impact of the focused ads further. This results in increased interaction in the form of response and feedback from the person who views the ad. Such an end-to-end interaction in the form of a response or feedback is of great value to any ad campaign because it enables the optimization of the impact of current and future ad campaigns.

In the case of ad conversions using the conversion tools available, such as the Adobe® Wallaby tool which converts Flash® ads into HTML5 ads, earmarking certain areas of the ad real estate with mobile specific calls-to-action is needed. These earmarked areas of the ad associated with call-to-action enablers, specifically for different device resolutions, and target groups of mobile consumers. By inserting transparent hot-spots onto different animations in the earmarked areas within the re-purposed ad, and by associating the call-to-action enablers to these hot-spots, the converted ads can be enabled for end-to-end interaction with full capabilities for display on MHDDs **101**.

FIG. **2** is a block schematic representation **200** of an MHDD display that shows hot-spots instantiated on the displayed ad to allow the maximization of the area for ad display, while providing the capabilities to the user for preferred choice of interaction. By use of transparent markers or hot-spots **211**, **212**, and **213**, that have user specific call-to-action enablers for activities associated with them, typically on the ad images within the ads, the available space for display **203** for the ad on the display screen **102** of the MHDD **101** can be maximized. This is done by eliminating the switches and inserts **111**, **112**, **113** of the prior art and thus saving the area **104** necessary on the screen **102** for their instantiation. Because the hot-spots **211**, **212**, **213** can be made transparent they do not restrict the viewing of the full ad display on the display screen **102** of the MHDD **101**.

The transparent hot-spots **211**, **212**, and **213** attached to the various components of the ad can be assigned a preferred set of different calls-to-action for the user of the MHDD **101**, based on user preferences stored on the MHDD **101**. Here, again the preferred call-to-action can be chosen from the list of call-to-action enablers, e.g. Click-to-Call, Click-to-Browse, Click-to-Jump page, Click-to-Message, Click-to-Video, Click-to-Ad Unit, Click-to-Mail, Click-to-Bookmark, Click-to-Share, or Click-to-Download, all of which can also be downloaded on to the MHDD.

In the typical case, a processor on the MHDD selects the call-to-action enablers to be used. This selection is based on the pre-stored preference of the user on the MHDD **101**. Ads having a transparent marker or hot-spot **211**, **212**, **213** are downloaded by the MHDD **101**. A processor on the MHDD **101** enables the association of the chosen call-to-action with the hot-spots instantiated on the ad, modifying the ad for dynamic customer interaction. During viewing of content, the ad is rendered and displayed at an appropriate ad spot within the content stream. The complex images and ads created by the studios and other ad agencies for specific ad campaigns can remain essentially unaltered and use the maximum allowed area **203** of the display screen **102** of the MHDD **101** for display of the ad. This is achieved by eliminating the area **104** on the display screen **102** used in the prior art to instantiate the switches **111**, **112** and insert **113** (see FIG. **1**). A key difference being that the non-interactive ad image is now made into an interactive image that includes the transparent hot-spots assigned to the set of user preferred call-to-action enablers for activity generation within the image itself. The user of the MHDD **101** can, for example, move a cursor over the image to a region containing a transparent hot-spot **212**, making the hotspot **212** visible and enabled for a preferred call-to-action activity, thereby initiating that preferred activity and interacting with the ad displayed on the display screen **102**.

FIG. **3** is a flow chart **3000** showing the use of transparent hot-spots to make the full display screen available for ad display, while still providing the capability for customer interaction and feedback.

A targeted ad **203** developed for a target users, and having assignable transparent hot-spots **211**, **212**, **213** is downloaded by the MHDD **101**. The ad **203** contains both dynamic and static components covering the message to be conveyed (S**3001**).

The available call-to-action enablers are downloaded by the MHDD **101** (S**3002**).

The processor on the MHDD **101** checks the call-to-action enablers against the known preferred modes of activity of the target user of the MHDD **101**, and chooses the preferred call-to-action enablers from the available downloaded call-to-action enablers (S**3003**).

The processor also associates the chosen call-to-action enablers with the appropriate hot-spots **211**, **212**, **213** on the ad, making the non-interactive ad into an interactive ad (S**3004**).

During an ad spot, the ad **203** is rendered and displayed on the screen **102** of the MHDD **101** (S**3005**). The use of the transparent hot-spots **211**, **212**, **213** assigned to the call-to-action enablers eliminates the need to have switches and inserts **111**, **112**,**113** instantiated separately on the screen using up area **104**. This allows the whole display screen **102** to be used for the ad **203** display.

The user is enabled to interact with the ad **203** using the hot-spots **211**, **212**, **213** on screen to provide the required call-to-action activity and feedback (S**3006**).

Hence, this method of using transparent hot-spots **211**, **212**, **213** within the ad **203** enables user interaction and feed back, while allowing the use of the whole display screen **102** of the MHDD **101** for the ad **203** display.

The use of a transparent hot-spot or a marker within the ads provides the best solution for maximizing the display area for the ad **203** within the total available display area **102** of the MHDD **101**, while providing for all the preferred modes of end-to-end response to the consumer.

Computer Implementation

FIG. **4** is a block schematic diagram of a machine in the exemplary form of a computer system **1600** within which a set of instructions for causing the machine to perform any one of the foregoing methodologies may be executed. In alternative embodiments, the machine may comprise or include a network router, a network switch, a network bridge, personal digital assistant (PDA), a cellular telephone, a Web appliance or any machine capable of executing or transmitting a sequence of instructions that specify actions to be taken.

The computer system **1600** includes a processor **1602**, a main memory **1604** and a static memory **1606**, which communicate with each other via a bus **1608**. The computer system **1600** may further include a display unit **1610**, for example, a liquid crystal display (LCD) or a cathode ray tube (CRT). The computer system **1600** also includes an alphanumeric input device **1612**, for example, a keyboard; a cursor control device **1614**, for example, a mouse; a disk drive unit **1616**, a signal generation device **1618**, for example, a speaker, and a network interface device **1628**.

The disk drive unit **1616** includes a machine-readable medium **1624** on which is stored a set of executable instructions, i.e., software, **1626** embodying any one, or all, of the methodologies described herein below. The software **1626** is also shown to reside, completely or at least partially, within the main memory **1604** and/or within the processor **1602**. The software **1626** may further be transmitted or received over a network **1630** by means of a network interface device **1628**.

In contrast to the system **1600** discussed above, a different embodiment uses logic circuitry instead of computer-executed instructions to implement processing entities. Depending upon the particular requirements of the application in the areas of speed, expense, tooling costs, and the like, this logic may be implemented by constructing an application-specific integrated circuit (ASIC) having thousands of tiny integrated transistors. Such an ASIC may be implemented with complementary metal oxide semiconductor (CMOS), transistor-transistor logic (TTL), very large systems integration (VLSI), or another suitable construction. Other alternatives include a digital signal processing chip (DSP), discrete circuitry (such as resistors, capacitors, diodes, inductors, and transistors), field programmable gate array (FPGA), programmable logic array (PLA), programmable logic device (PLD), and the like.

It is to be understood that embodiments may be used as or to support software programs or software modules executed upon some form of processing core (such as the CPU of a computer) or otherwise implemented or realized upon or within a machine or computer readable medium. A machine-readable medium includes any mechanism for storing or transmitting information in a form readable by a machine, e.g. a computer. For example, a machine readable medium includes read-only memory (ROM); random access memory (RAM); magnetic disk storage media; optical storage media; flash memory devices; electrical, optical, acoustical or other form of propagated signals, for example, carrier waves, infrared signals, digital signals, etc.; or any other type of media suitable for storing or transmitting information.

The invention disclosed herein may be embodied in software designed to execute on a specific hardware platform, firmware, hardware, or any combination thereof.

Although the invention is described herein with reference to the preferred embodiment, one skilled in the art will readily appreciate that other applications may be substituted for those set forth herein without departing from the spirit and scope of the present invention. Accordingly, the invention should only be limited by the Claims included below.

The invention claimed is:

1. A method for a mobile hand held display device (MHDD) to display targeted advertisements (ad), comprising:

downloading, by a processor on said MHDD, a targeted ad comprising dynamic and static content and storing said ad in a storage medium of said MHDD;

wherein said ad is directed to a target group of users of MHDDs; and

wherein said ad comprises a plurality of transparent hot-spots;

in a separate step, said processor also downloading a plurality of call-to-action enablers and storing said call-to-action enablers in said storage medium;

said processor checking said call-to-action enablers against one or more preferred modes of activity of a target user of said MHDD and choosing one or more preferred call-to-action enablers from among said downloaded call-to-action enablers for use with said downloaded ad based upon said one or more preferred modes of activity of a target user of said MHDD;

said processor making said ad interactive by associating at least one of said chosen call-to-action enablers with appropriate hot-spots from among said plurality of hot-spots;

said processor rendering and displaying said ad on the MHDD during an ad spot;

said processor providing said MHDD user with a choice of a preferred response mode to said ad from among a set of chosen preferred call-to-action enablers when said user selects at least one hot-spot from said plurality of hot-spots in said ad; and

said processor enabling said user to respond to said ad by selecting a hot spot and thereby invoking a call-to-action enabler associated with said hot-spot;

wherein said ad is displayed in a maximum available display area said MHDD display while maintaining user interactivity with said ad via said hot spots.

2. The method of claim **1**, said call-to-action enablers, upon user selection of a hot spot, invoking actions comprising any of Click-to-Call, Click-to-Browse, Click-to-Jump page, Click-to-Video, Click-to-Ad Unit, Click-to-Message, Click-to-Mail, Click-to-Bookmark, Click-to-Share, and Click-to-Download.

3. A mobile hand held display device (MHDD) for displaying targeted advertisements (ads), comprising:

a processor configured to download a targeted ad comprising dynamic and static content;

a storage medium configured to store said downloaded ad;

wherein said ad is directed to a target group of users of MHDDs; and

wherein said ad comprises a plurality of transparent hot-spots;

wherein said processor is further configured to also download, in a separate download step, a plurality of call-to-action enablers and storing said call-to-action enablers in said storage medium;

wherein said processor is further configured to check said call-to-action enablers against one or more preferred modes of activity of a target user of said MHDD and choose one or more preferred call-to-action enablers from among said downloaded call-to-action enablers for use with said downloaded ad based upon said one or more preferred modes of activity of a target user of said MHDD;

wherein said processor is further configured to make said ad interactive by associating at least one of said chosen call-to-action enablers with appropriate hot-spots from among said plurality of hot-spots;

wherein said processor is further configured to render and display said ad on a display during an ad spot;

wherein said processor is further configured to provide said MHDD user with a choice of a preferred response mode to said ad from among a set of chosen preferred call-to-action enablers when said user selects at least one hot-spot from said plurality of hot-spots in said ad;

wherein said processor is further configured to enable said user to respond to said ad by selecting a hot spot and thereby invoking a call-to-action enabler associated with said hot-spot; and

wherein said ad is displayed in a maximum available display area of said display while maintaining user interactivity with said ad via said hot spots.

4. A method for delivering display targeted advertisements (ad) to a mobile hand held display device (MHDD), comprising:

developing a targeted ad comprising assignable transparent hot spots and dynamic and static content, delivering said ad to said MHDD, and causing said ad to be stored in a storage medium of said MHDD;

wherein said ad is directed to a target group of users of MHDDs;

in a separate step, delivering a plurality of call-to-action enablers to said MHDD and causing said call-to-action enablers to be stored in said MHDD storage medium;

wherein said call-to-action enablers are enabled to be checked against one or more preferred modes of activity of a target user of said MHDD and wherein one or more preferred call-to-action enablers are selectable from among downloaded call-to-action enablers for use with a downloaded ad based upon one or more preferred modes of activity of a target user of said MHDD;

wherein said ad is configured to be interactive by at least one of said call-to-action enablers being assigned to appropriate hot-spots from among said plurality of hot-spots; and

responsive to said delivering said ad, receiving user feedback from during an ad spot on said MHDD, wherein said ad is rendered and displayed in a maximum available display area said MHDD display while maintaining user interactivity with said ad via said hot spots and wherein a selected hot spot invoked a call-to-action enabler associated with said hot-spot.

5. A method for a mobile hand held display device (MHDD) to display targeted advertisements (ad), comprising:

downloading, by a processor on said MHDD, a targeted ad comprising dynamic and static content into an MHDD and storing said ad in a storage medium on said MHDD;

wherein said ad is directed to a target group of users of MHDDs; and

wherein said ad comprises a plurality of transparent hot-spots;

in a separate step, said processor also downloading a plurality of call-to-action enablers and storing said call-to-action enablers in said storage medium;

said processor checking said call-to-action enablers against one or more preferred modes of activity of a target user of said MHDD and choosing one or more preferred call-to-action enablers from among said downloaded call-to-action enablers for use with said downloaded ad based upon said one or more preferred modes of activity of a target user of said MHDD;

said processor making said ad interactive by associating at least one of said chosen call-to-action enablers with appropriate hot-spots from among said plurality of hot-spots; and

said processor rendering and displaying on a display of said MHDD said ad during an ad spot.

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